Exhibit R-2, RDT&E Budget Item Justification									Date: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/Budget Activity 6					R-1 ITEM NOMENCLATURE Unexploded Ordnance Detection & Clearance - PE 0603858D8Z					
COST ($ in millions)	FY PY	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	Cost to Complete	Total Cost
Total PE Cost	0	0	1.259	1.226	1.221	1.215	0	0	Continuing	Continuing
Project A Name/No. & subtotal cost										
Project B Name/No. & subtotal cost										
Project C Name/No. & subtotal cost										
Quantity of RDT&E Articles										

A. Mission Description and Budget Item Justification

Brief Description of Element

This program element funds the Joint Unexploded Ordnance Coordinating Office (JUXOCO) of the Unexploded Ordnance Center of Excellence (UXOCOE) to develop policy and provide oversight in coordinating requirements and technology in detection and clearance of unexploded ordnance (UXO) within the Department of Defense (DoD), as well as with other United States and international agencies, academia, and industry; to establish and maintain standards for testing, modeling, and the evaluation of unexploded ordnance detection and clearance technology; and to establish, gather, and maintain a database of the results of these efforts.

In response to a request from the House National Security Committee (HNSC) and concerns of the General Accounting Office (GAO), the Department of Defense submitted a plan in March 1997, "Report to Congress: Unexploded Ordnance Clearance: A Coordinated Approach to Requirements and Technology Development." This report was developed by a joint, inter-agency task force comprised of the proponents of the unexploded ordnance (UXO) clearance mission areas (active range clearance, demining, countermine, explosive ordnance disposal, and environmental remediation). The report defined research and development priorities, program management, and cooperative activities for technology applicable to area ordnance clearance, also known as UXO clearance. The report also described a plan to maintain visibility over and leverage technology efforts within DoD, at other government agencies, and in private industry for the detection, neutralization, and disposal of UXO. In May 1997, the Under Secretary of Defense for Acquisition and Technology directed the establishment of the UXO Center of Excellence (UXOCOE) to implement this plan, and in October 1997, the Department established the operational arm of the UXOCOE, the Joint UXO Coordination Office (JUXOCO), which is collocated with the Night Vision Electronic Sensors Directorate at Ft. Belvoir, VA.

Program Accomplishments and Plans:

(U) FY 1998 Accomplishments:

- Stood-up the Joint UXO Coordination Office (JUXOCO) at Ft. Belvoir, VA.
- Focused the expertise, capabilities and technologies of the government, academia and industry to improve the detection and clearance of UXO nationally and internationally. Developed a MOU between DOE and DOD for the conduct of Cooperative R&D programs for UXO/Mine Detection and Neutralization (Not Applicable)
- Assessed current technology capabilities against mission requirements and developed investment strategies. This involved conducting a requirements workshop, a resource managers workshop, and technology workshops in aided target recognition, magnetometry, radar, chemical sensors, active electromagnetics, electro-optics, robotics, large area clearance, and render safe/neutraliztion. (Not Applicable)
- Updated and maintained the UXO clearance/detection database and computer website to promote active interaction and sharing of information, concepts and technology within DoD and with other US and international agencies, academia, and industry. See www.denix.osd.mil/UXOCOE. (Not Applicable)
- Developed standardized target UXO, benchmarks, metrics, milestones and deliverables. Established a pilot site at Ft. A.P. Hill, VA to demonstrate test protocols. (Not Applicable)
- Drafted a report for review in preparation for submission to the EXCOM and Congress. (Not Applicable)

(U) FY 1999 Plans:

- Preparation of updated report for submission to Congress. ($ 0.100 million)
- Continue to function as the focal point for UXO detection and clearance expertise. ($ 0.159 million)
- Promote international cooperation and forge coordinated working research efforts in promising technologies. ($ 0.100 million)
- Continue development of standards, test sites, test targets and test protocols. Select and establish common test sites, data formats, and metrics. ($ 0.780 million)
- Update and maintain the UXO clearance/detection database and computer website to promote interaction and sharing of information, concepts and technology within DoD and with other US and international agencies, academia, and industry. (0.120 million)

(U) FY 2000 Plans:

- Fully integrate industry requirements for UXO clearance equipment into UXO requirements process. ($0.100 million)
- Establish protocols for evaluation of foreign UXO detection sensor data. ($0.100 million)
- Collocate two UXO experimental areas with existing UXO testing areas. Conduct scientific experiments to gather data on the performance of detection sensors at these locations. ($.926 million)

- Update and maintain the UXO clearance/detection database and computer website to promote interaction and sharing of information, concepts and technology within DoD and with other US and international agencies, academia, and industry. (0.100 million)

(U) FY2001 Plans:

- Conduct requirements and technology workshops to update the technological thrusts for UXO RDT&E. ($0.100 million)
- Integrate international and industrial research and equipment into a computerized database of UXO RDT&E to enhance information sharing. ($0.100 million)
- Collocate one UXO experimental area with an existing UXO testing area in a geologically unique local. Conduct scientific experiments to gather data on the performance of detection sensors at this location and previously established areas. ($1.021 million)

B. Program Change Summary: Not Applicable

C. Other Program Funding Summary: PE 0602712A

PY	FY98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	To Complete	Total Cost
0	1.5	0.5	0.5	0.5	0.5	0.5	0	Continuing	Continuing

D. Acquisition Strategy: Not Applicable

E. Schedule Profile: Not Applicable

Exhibit R-2a, RDT&E Project Justification									Date: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide Budget Activity 6			PROGRAM ELEMENT PE 0603858D8Z		PROJECT NAME AND NUMBER Unexploded Ordnance Detection and Clearance					
COST ($ in millions)	FY PY	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	Cost to Complete	Total Cost
Total PE Cost	0	0	1.259	1.226	1.221	1.215	0	0	Continuing	Continuing
RDT&E Articles Qty										

A. Mission Description and Budget Item Justification

Brief Description of Element

This program element funds the Joint Unexploded Ordnance Coordinating Office (JUXOCO) of the Unexploded Ordnance Center of Excellence (UXOCOE) to develop policy and provide oversight in coordinating requirements and technology in detection and clearance of unexploded ordnance (UXO) within the Department of Defense (DoD), as well as with other United States and international agencies, academia, and industry; to establish and maintain standards for testing, modeling, and the evaluation of unexploded ordnance detection and clearance technology; and to establish, gather, and maintain a database of the results of these efforts.

In response to a request from the House National Security Committee (HNSC) and concerns of the General Accounting Office (GAO), the Department of Defense submitted a plan in March 1997, "Report to Congress: Unexploded Ordnance Clearance: A Coordinated Approach to Requirements and Technology Development." This report was developed by a joint, inter-agency task force comprised of the proponents of the unexploded ordnance (UXO) clearance mission areas (active range clearance, demining, countermine, explosive ordnance disposal, and environmental remediation). The report defined research and development priorities, program management, and cooperative activities for technology applicable to area ordnance clearance, also known as UXO clearance. The report also described a plan to maintain visibility over and leverage technology efforts within DoD, at other government agencies, and in private industry for the detection, neutralization, and disposal of UXO. In May 1997, the Under Secretary of Defense for Acquisition and Technology directed the establishment of the UXO Center of Excellence (UXOCOE) to implement this plan, and in October 1997, the Department established the operational arm of the UXOCOE, the Joint UXO Coordination Office (JUXOCO), which is collocated with the Night Vision Electronic Sensors Directorate at Ft. Belvoir, VA.

Program Accomplishments and Plans:

(U) FY 1998 Accomplishments:

- Stood-up the Joint UXO Coordination Office (JUXOCO) at Ft. Belvoir, VA.
- Focused the expertise, capabilities and technologies of the government, academia and industry to improve the detection and clearance of UXO nationally and internationally. Developed a MOU between DOE and DOD for the conduct of Cooperative R&D programs for UXO/Mine Detection and Neutralization (Not Applicable)
- Assessed current technology capabilities against mission requirements and developed investment strategies. This involved conducting a requirements workshop, a resource managers workshop, and technology workshops in aided target recognition, magnetometry, radar, chemical sensors, active electromagnetics, electro-optics, robotics, large area clearance, and render safe/neutraliztion. (Not Applicable)
- Updated and maintained the UXO clearance/detection database and computer website to promote active interaction and sharing of information, concepts and technology within DoD and with other US and international agencies, academia, and industry. See www.denix.osd.mil/UXOCOE. (Not Applicable)
- Developed standardized target UXO, benchmarks, metrics, milestones and deliverables. Established a pilot site at Ft. A.P. Hill, VA to demonstrate test protocols. (Not Applicable)
- Drafted a report for review in preparation for submission to the EXCOM and Congress. (Not Applicable)

(U) FY 1999 Plans:

- Preparation of updated report for submission to Congress. ($ 0.100 million)
- Continue to function as the focal point for UXO detection and clearance expertise. ($ 0.159 million)
- Promote international cooperation and forge coordinated working research efforts in promising technologies. ($ 0.100 million)
- Continue development of standards, test sites, test targets and test protocols. Select and establish common test sites, data formats, and metrics. ($ 0.780 million)
- Update and maintain the UXO clearance/detection database and computer website to promote interaction and sharing of information, concepts and technology within DoD and with other US and international agencies, academia, and industry. (0.120 million)

(U) FY 2000 Plans:

- Fully integrate industry requirements for UXO clearance equipment into UXO requirements process. ($0.100 million)
- Establish protocols for evaluation of foreign UXO detection sensor data. ($0.100 million)
- Collocate two UXO experimental areas with existing UXO testing areas. Conduct scientific experiments to gather data on the performance of detection sensors at these locations. ($.926 million)
- Update and maintain the UXO clearance/detection database and computer website to promote interaction and sharing of information, concepts and technology within DoD and with other US and international agencies, academia, and industry. (0.100 million)

(U) FY2001 Plans:

- Conduct requirements and technology workshops to update the technological thrusts for UXO RDT&E. ($0.100 million)
- Integrate international and industrial research and equipment into a computerized database of UXO RDT&E to enhance information sharing. ($0.100 million)

Exhibit R-2a, RDT&E Project Justification	Date: February 1999

- Collocate one UXO experimental area with an existing UXO testing area in a geologically unique local. Conduct scientific experiments to gather data on the performance of detection sensors at this location and previously established areas. ($1.021 million)

B. Other Program Funding Summary: PE 0602712A

PY	FY98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	To Complete	Total Cost
0	1.5	0.5	0.5	0.5	0.5	0.5	0	Continuing	Continuing

C. Acquisition Strategy: Not Applicable

D. Schedule Profile: Not Applicable

Exhibit R-2, RDT&E Budget Item Justification									Date: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/Budget Activity 6					R-1 ITEM NOMENCLATURE Unexploded Ordnance Detection & Clearance - PE 0603858D8Z					
COST ($ in millions)	FY PY	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	Cost to Complete	Total Cost
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Project A Name/No. & subtotal cost										
Project B Name/No. & subtotal cost										
Project C Name/No. & subtotal cost										
Quantity of RDT&E Articles										

A. Mission Description and Budget Item Justification

Brief Description of Element

This program element funds the Joint Unexploded Ordnance Coordinating Office (JUXOCO) of the Unexploded Ordnance Center of Excellence (UXOCOE) to develop policy and provide oversight in coordinating requirements and technology in detection and clearance of unexploded ordnance (UXO) within the Department of Defense (DoD), as well as with other United States and international agencies, academia, and industry; to establish and maintain standards for testing, modeling, and the evaluation of unexploded ordnance detection and clearance technology; and to establish, gather, and maintain a database of the results of these efforts.

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Program Accomplishments and Plans:

(U) FY 1998 Accomplishments:

- Stood-up the Joint UXO Coordination Office (JUXOCO) at Ft. Belvoir, VA.
- Focused the expertise, capabilities and technologies of the government, academia and industry to improve the detection and clearance of UXO nationally and internationally. Developed a MOU between DOE and DOD for the conduct of Cooperative R&D programs for UXO/Mine Detection and Neutralization (Not Applicable)
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(U) FY 1999 Plans:

- Preparation of updated report for submission to Congress. ($ 0.100 million)
- Continue to function as the focal point for UXO detection and clearance expertise. ($ 0.159 million)
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- Update and maintain the UXO clearance/detection database and computer website to promote interaction and sharing of information, concepts and technology within DoD and with other US and international agencies, academia, and industry. (0.120 million)

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- Fully integrate industry requirements for UXO clearance equipment into UXO requirements process. ($0.100 million)
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B. Program Change Summary: Not Applicable

C. Other Program Funding Summary: PE 0602712A

PY	FY98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	To Complete	Total Cost
0	1.5	0.5	0.5	0.5	0.5	0.5	0	Continuing	Continuing

D. Acquisition Strategy: Not Applicable

E. Schedule Profile: Not Applicable

Exhibit R-2a, RDT&E Project Justification									Date: February 1999	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide Budget Activity 6			PROGRAM ELEMENT PE 0603858D8Z		PROJECT NAME AND NUMBER Unexploded Ordnance Detection and Clearance					
COST ($ in millions)	FY PY	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	Cost to Complete	Total Cost
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RDT&E Articles Qty										

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Program Accomplishments and Plans:

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(U) FY 2000 Plans:

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- Conduct requirements and technology workshops to update the technological thrusts for UXO RDT&E. ($0.100 million)
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Exhibit R-2a, RDT&E Project Justification	Date: February 1999

- Collocate one UXO experimental area with an existing UXO testing area in a geologically unique local. Conduct scientific experiments to gather data on the performance of detection sensors at this location and previously established areas. ($1.021 million)

B. Other Program Funding Summary: PE 0602712A

PY	FY98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	To Complete	Total Cost
0	1.5	0.5	0.5	0.5	0.5	0.5	0	Continuing	Continuing

C. Acquisition Strategy: Not Applicable

D. Schedule Profile: Not Applicable